

ABSTRACT OF THE DISCLOSURE

36) Protective suits are used to protect the wearer against hazardous materials such as particulates, liquids, chemicals, pathogens, radiation, electromagnetism, physical trauma, heat and for rain protection. They are used to protect the wearer's surrounding in cleanrooms. Medical protective suits are used to prevent the spread of pathogens from the wearer. Unfortunately, they can cause heat stress by reducing air circulation. This invention discloses a protective suit with bellows and dual one-way valves operated by the normal movement of the wearer to draw air through the suit's interior to cool the wearer and provide breathable air. Filters can be placed in the bellows and suit's air vents, or the suit can be made of a filter material to protect the wearer and the surroundings. The disclosed suit is lighter, less expensive and more mobile than prior-art protective ventilated suits that use powered or externally supplied ventilation and cooling devices. It does not depend on limited life portable power sources for ventilation. Filtered air, supplied by the bellows, can be used for breathing, eliminating the need for a separate source of air.